

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A heat transport device comprising:

a first base plate including a liquid suction and retention unit ~~provided~~ configured to retain a liquid-phase working fluid by capillary force,

a body with protrusions on a bottom face thereof,

a second base plate facing the first base plate, the second base plate including a face provided with a first concavity ~~functioning as so as to define~~ a vaporization chamber configured to vaporize the liquid-phase working fluid retained in the liquid suction and retention unit to a gas-phase working fluid,

a second concavity cooperating with the body ~~to form so as to define~~ a liquefaction chamber configured to liquefy the gas-phase working fluid vaporized at the vaporization chamber to the liquid-phase working fluid,

a first ditch ~~forming that defines~~ a channel configured to transport the gas-phase working fluid from the vaporization chamber to the liquefaction chamber, and

a second ditch ~~forming that defines~~ a further channel configured to transport the liquid-phase working fluid from the liquefaction chamber to the liquid suction and retention unit, and

a thermoplastic or thermosetting resin material bonding the first and second base plates.

Claim 2 (Previously Presented): The heat transport device according to claim 1, further comprising:

a third base plate facing the second base plate, wherein the third base plate is disposed remote from the first base plate.

Claim 3 (Original): The heat transport device according to claim 2, wherein the first base plate and the third base plate envelop the second base plate, and the periphery of the first base plate and the periphery of the third base plate are sealed.

Claim 4 (Previously Presented): The heat transport device according to claim 1, further comprising:

a sheet disposed on the bottom face of the second base plate.

Claim 5 (Previously Presented): The heat transport device according to claim 4, wherein the sheet comprises a metal foil.

Claim 6 (Original): The heat transport device according to claim 2, wherein the second base plate comprises a resin material and the third base plate comprises a metal material.

Claim 7 (Original): The heat transport device according to claim 6, wherein the difference in coefficient of linear expansion between the second base plate and the third base plate is 5×10^{-6} (1/°C) or less.

Claim 8 (Previously Presented): The heat transport device according to claim 1, further comprising:

a fourth base plate facing the third base plate, wherein the fourth base plate is disposed remote from the first base plate.

Claim 9 (Withdrawn): A heat transport device comprising:

a vaporization unit including;

a first base plate having a liquid suction and retention unit for sucking and retaining a liquid-phase working fluid by capillary force;

a second base plate facing the first base plate, having a face provided with a concavity functioning as a vaporization chamber for vaporizing the liquid-phase working fluid retained in the liquid suction and retention unit to a gas-phase working fluid, and comprising a material having a thermal conductivity lower than that of silicon; and

a thermoplastic or thermosetting resin material for bonding the first and second base plates;

a liquefaction unit including;

a third base plate;

a fourth base plate facing the third base plate, having a face provided with a concavity functioning as a liquefaction chamber for liquefying the gas-phase working fluid to the liquid-phase working fluid, and comprising a material having a thermal conductivity lower than that of silicon; and

a thermoplastic or thermosetting resin material for bonding the third and fourth base plates;

a channel for transporting the gas-phase working fluid from the vaporization unit to the liquefaction unit; and

a channel for transporting the liquid-phase working fluid from the liquefaction unit to the vaporization unit.

Claim 10 (Currently Amended): A method for manufacturing a heat transport device, comprising:

forming a first base plate including a liquid suction and retention unit ~~provided~~
configured to retain a liquid-phase working fluid by capillary force, and

a body provided with protrusions on a bottom face thereof;

forming a second base plate including a face provided with a first concavity
~~functioning as~~ so as to define a vaporization chamber configured to vaporize the liquid-phase
working fluid retained in the liquid suction and retention unit to a gas-phase working fluid,

a second concavity ~~functioning as~~ cooperating with the body so as to define a
liquefaction chamber ~~with the body~~ configured to liquefy the gas-phase working fluid
vaporized at the vaporization chamber to the liquid-phase working fluid,

a first ditch ~~functioning as~~ that defines a channel configured to transport the gas-phase
working fluid from the vaporization chamber to the liquefaction chamber, and

a second ditch ~~functioning as~~ that defines a further channel configured to transport the
liquid-phase working fluid from the liquefaction chamber to the liquid suction and retention
unit;

laminating the first base plate, a thermoplastic or thermosetting resin material, and the
second base plate; and

bonding the first and the second base plates with the thermoplastic or thermosetting
resin material by heating the composite of the first base plate, the thermoplastic or
thermosetting resin material, and the second base plate under a pressurized condition.

Claim 11 (Currently Amended): The heat transport device according to claim 1,
wherein a ~~[[top]]~~ surface of the first base plate is covered with a protective film.

Claim 12 (Currently Amended): ~~The heat transport device according to claim 11, A~~
heat transport device comprising:

a first base plate including a liquid suction and retention unit configured to retain a liquid-phase working fluid by capillary force,

a body with protrusions on a bottom face thereof,

a second base plate facing the first base plate, the second base plate including a face provided with a first concavity so as to define a vaporization chamber configured to vaporize the liquid-phase working fluid retained in the liquid suction and retention unit to a gas-phase working fluid,

a second concavity cooperating with the body so as to define a liquefaction chamber configured to liquefy the gas-phase working fluid vaporized at the vaporization chamber to the liquid-phase working fluid,

a first ditch that defines a channel configured to transport the gas-phase working fluid from the vaporization chamber to the liquefaction chamber, and

a second ditch that defines a further channel configured to transport the liquid-phase working fluid from the liquefaction chamber to the liquid suction and retention unit,

a thermoplastic or thermosetting resin material bonding the first and second base plates,

wherein a surface of the first base plate is covered with a protective film,

wherein the protective film includes silicon or titanium.

Claim 13 (Currently Amended): ~~The method for manufacturing a heat transport device according to claim 10, further comprising:~~ A method for manufacturing a heat transport device, comprising:

forming a first base plate including a liquid suction and retention unit configured to retain a liquid-phase working fluid by capillary force, and

a body provided with protrusions on a bottom face thereof;

forming a second base plate including a face provided with a first concavity so as to define a vaporization chamber configured to vaporize the liquid-phase working fluid retained in the liquid suction and retention unit to a gas-phase working fluid,

a second concavity cooperating with the body so as to define a liquefaction chamber configured to liquefy the gas-phase working fluid vaporized at the vaporization chamber to the liquid-phase working fluid,

a first ditch that defines a channel configured to transport the gas-phase working fluid from the vaporization chamber to the liquefaction chamber, and

a second ditch that defines a further channel configured to transport the liquid-phase working fluid from the liquefaction chamber to the liquid suction and retention unit;

laminating the first base plate, a thermoplastic or thermosetting resin material, and the second base plate; and

bonding the first and the second base plates with the thermoplastic or thermosetting resin material by heating the composite of the first base plate, the thermoplastic or thermosetting resin material, and the second base plate under a pressurized condition;

oxidizing a surface of the first base plate;

coating the oxidized surface with a thin film of silicon or titanium; and

oxidizing the coated surface by plasma treatment.

Claim 14 (New): The heat transport device according to claim 1, wherein the first base plate further includes a first opening.

Claim 15 (New): The heat transport device according to claim 14, wherein the body is configured to fit in the first opening.